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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* TIMOTHY P. MICHEL,  
WALTER A. BENNAGE, and DAEROON SUN

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Appeal 2008-0981  
Application 10/696,643  
Technology Center 3700

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Decided: August 25, 2008

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Before HUBERT C. LORIN, JENNIFER D. BAHR, and  
BIBHU R. MOHANTY, *Administrative Patent Judges*.

BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Timothy P. Michel et al. (Appellants) appeal under 35 U.S.C. § 134  
from the Examiner's decision rejecting claims 1-3, 5, 6, 19, and 20 (Appeal

Br. 1<sup>1</sup>). Claims 4, 7-12, 15, 17, 18, 21, and 22 have been withdrawn from consideration and claims 13, 14, and 16 have been canceled. We have jurisdiction over this appeal under 35 U.S.C. § 6 (2002).

### *The Invention*

Appellants' claimed invention is directed to power tools having reciprocating work elements and provided with an improved gripping collar (Specification 1:3-5). Claim 1 is illustrative of the claimed invention and reads as follows:

1. A scroll collar and a reciprocating tool assembly for providing a rotating grip, comprising:

a reciprocating tool having a housing and a working end to which a reciprocating tool blade can be attached;

a support structure on said housing adjacent said working end; and

a generally cylindrical scroll collar carried by said support structure and configured to rotate relative to said support structure and an attached reciprocating tool blade around a scroll collar axis.

### *The Rejections*

The following rejections are before us for review.

- (1) Claims 1 and 3 stand rejected under 35 U.S.C. § 102(b) as anticipated by Pioch (US 4,276,675, issued July 7, 1981).
- (2) Claims 1-3, 19, and 20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Pioch or Ginter (US 2,545,659, issued

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<sup>1</sup> We refer in this opinion to the Appeal Brief ("Appeal Br."), filed January 10, 2007, and to the Reply Brief ("Reply Br."), filed May 29, 2007.

March 20, 1951) in view of Bourke (US 5,755,293, issued May 26, 1998).<sup>2</sup>

- (3) Claims 5 and 6 stand rejected under 35 U.S.C. § 103(a) as unpatentable over either Pioch in view of Phillips (US 2003/0110645 A1, published June 19, 2003) or Pioch or Ginter in view of Bourke and Phillips.<sup>3</sup>

Although Appellants do not explicitly include ground (3) as one of the “GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL” on page 3 of the Appeal Brief, Appellants unambiguously include claims 5 and 6 among the claims involved in the appeal (Appeal Br. 1). Appellants also add that “[t]he dependent claims not specifically addressed necessarily incorporate the features of the claims from which they depend in addition to defining other features and/or functionality and also should be allowed” (Appeal Br. 10; Reply Br. 8). It thus is apparent that Appellants’ intention is

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<sup>2</sup> The format of the Examiner’s rejection as articulated on page 3 of the Office action mailed May 22, 2006 (the rejection from which the appeal is taken) was quite unconventional in its failure to include the specific evidentiary basis relied upon in the statement of the rejection and its reference to Pioch, Ginter and Biek (no longer relied upon), and Bourke as exemplary of the state of the art. Nevertheless, it is readily apparent from a reading of the explanation of the rejection as a whole that the basis of the rejection was that the rejected claims are unpatentable over any of Pioch, Ginter, and Biek in view of Bourke. In the Answer, mailed March 27, 2007, the Examiner drops Biek from the rejection (Answer 3).

<sup>3</sup> The format of the Examiner’s rejection (Answer 7-8) is quite unconventional in its identification of the prior art references relied upon. Nevertheless, it seems apparent from a reading of the explanation of the rejection (Answer 8) that the Examiner’s rejection incorporates the two combinations of references from the afore-mentioned rejections, namely, either Pioch alone or Pioch or Ginter in view of Bourke, and relies additionally on the teachings of Phillips.

to contest the rejection of claims 5 and 6 relying on the same arguments advanced against the rejections of claim 1. We thus treat the rejection of claims 5 and 6 as a contested rejection in this appeal.

### THE ISSUES

The first issue is whether the handle clamping means 34 of Pioch or the band 22 of Ginter satisfies the limitation in claim 1 of “a generally cylindrical scroll collar carried by said support structure and configured to rotate relative to said support structure and an attached reciprocating tool blade around a scroll collar axis.” This issue turns in part on claim interpretation and, more specifically, whether a reciprocating tool blade attached to the working end is positively recited as part of the claimed invention.

The second issue presented in this appeal is whether Appellants demonstrate that the Examiner erred in determining that the teachings of Bourke in combination with either Pioch or Ginter establish that it would have been obvious to provide a reciprocating tool blade on the working end of the power tool of either Pioch or Ginter.

### FINDINGS OF FACT

FF1. Pioch teaches an auxiliary handle 30 in combination with a power tool 10 (col. 2, ll. 46-48 and 58-61). The power tool is provided with a housing 12 including a generally cylindrical longitudinally aligned barrel portion 20 adjacent the forward end of the housing and a drill bit assembly 22 extending forwardly from the housing (col. 2, ll. 48-57).

- FF2. A drill bit has sharp edges that cut, in the sense of piercing or making an opening or gash in, the material of the workpiece being drilled.
- FF3. Pioch does not specifically limit the applicability of the invention to any particular type of power tool, but teaches that the problems sought to be overcome by the improved auxiliary handle are particularly acute on power tools such as rotary hammers and hammer drills which are adapted to impart both axial and torsional loads to a drill bit designed to work on relatively hard working surfaces (col. 1, ll. 23-27; col. 4, ll. 46-50).
- FF4. Pioch's auxiliary handle 30 comprises a clamping means 34 including clamping jaws 36, 38 having clamping surfaces adapted to receive a complimentary shaped annular collar portion 66 received on the barrel portion 20 of housing 12. The clamping jaws 36, 38 have bores 44, 46 therein for receiving an elongated stud member 42. A gripping member 32 is rotatably received on stud member 42 such that rotation of gripping member 32 on stud member in a tightening direction causes the clamping jaws to be clamped together. (Col. 2, l. 65 to col. 3, l. 38.) To use the auxiliary handle of Pioch, the operator orients the handle 30 in the desired position with the clamping means 34 in an uncompressed condition and then clamps handle 30 to the barrel portion 20 by rotating gripping member 32 to compress jaws 36, 38 together to thereby compress collar portion 66 to grip barrel portion 20 (col. 3, l. 64 to col. 4, l. 4). The auxiliary handle can be moved in any direction about the spherical zone defined by the outer surface 72 of collar portion 66 until the gripping member 32 is rotated to clamp clamping means 34 to collar 66 and, thus, collar 66 to barrel portion 20

(col. 4, ll. 5-9). Consequently, auxiliary handle 30 is rotatable 360 degrees about collar axis 80 (fig. 3) and can be pivoted transversely and longitudinally relative to axis 80 (col. 4, ll. 9-14).

FF5. The clamping means 34 of Pioch's auxiliary handle has a generally cylindrical shape (figs. 1 and 2).

FF6. Ginter teaches a power tool, such as an electric or pneumatic drill or the like (col. 1, ll. 2-3), provided with an auxiliary handle 20 mounted on the motor housing 10 by means of a band 22 (col. 2, ll. 18-27). The band 22 is normally freely rotatable on the motor housing 10 but may be locked relative thereto by means of a locking shoe 34 (col. 2, ll. 28-30).

FF7. Ginter's band 22 has a generally cylindrical shape.

FF8. Bourke evidences that the advantages of having a single power tool that can be used to impart either reciprocating sawing action or rotary drilling action were recognized in the art at the time of Appellants' invention. Bourke further teaches an adaptor or converter for converting rotational motion of a drill to reciprocating sawing action, thereby expanding the utility and versatility of cordless electric or pneumatic power drills or brace manual drills. (Col. 1, ll. 16-23.)

#### PRINCIPLES OF LAW

When construing claim terminology in the United States Patent and Trademark Office, this Board is required to give the claim language its broadest reasonable interpretation. *See In re Crish* 393 F.3d, 1253, 1256 (Fed. Cir. 2004); *In re Bigio*, 381 F.3d 1320, 1324 (Fed. Cir. 2004). *In re Hyatt*, 211 F.3d 1367, 1372-73 (Fed. Cir. 2003). Limitations not appearing

in the claims cannot be relied upon for patentability. *In re Self*, 671 F.2d 1344, 1348 (CCPA 1982).

To establish anticipation, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim. *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 (Fed. Cir. 2001); *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 1576 (Fed. Cir. 1991). Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention. *RCA Corp. v. Applied Digital Data Sys., Inc.*, 730 F.2d 1440, 1444 (Fed. Cir. 1984). It is not necessary that the reference teach what the subject application teaches, but only that the claim read on something disclosed in the reference, i.e., that all of the limitations in the claim be found in or fully met by the reference. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772 (Fed. Cir. 1983).

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007).

“A person of ordinary skill is also a person of ordinary creativity, not an automaton.” *Id.* at 1742.

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a

technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

*Id.* at 1740. We must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.  
*Id.*

## ANALYSIS

### *Claim Construction*

In contesting each of the rejections, Appellants direct their arguments to all of the claims so rejected as a group. Therefore, in accordance with 37 C.F.R. § 41.37(c)(1)(vii)(2007), we select claim 1 as the representative claim to decide the appeal of rejection (1), claim 1 as the representative claim to decide the appeal of rejection (2), and claim 5 to decide the appeal of rejection (3), with the remaining claims subject to each of the rejections standing or falling with the representative claim for that rejection.

We turn our attention first to claim construction. As Appellants dedicate a page and a half of the Reply Brief (Reply Br. 3-4) to the issue of whether an attached tool blade is an inherent feature of Pioch, we focus in particular on the significance of the “tool blade” referred to in claim 1. This terminology appears in two places in claim 1. Claim 1 recites “a reciprocating tool having ... a working end to which a reciprocating ***tool blade*** can be attached” (emphasis ours) and “a generally cylindrical scroll collar ... *configured to* rotate relative to said support structure and an attached reciprocating ***tool blade*** around a scroll collar axis” (emphasis

ours). Neither of these recitations positively includes a tool blade as part of the claimed invention. The first recitation merely requires that the working end of the reciprocating tool be capable of having a reciprocating tool blade attached to it. The second recitation merely requires that the scroll collar be configured to rotate (i.e., capable of rotating) relative to said support structure and an attached reciprocating tool blade (i.e., if a reciprocating tool blade were attached). This second recitation merely speaks to the capability of the scroll collar; it does not positively include an attached tool blade as part of the claimed invention.

A “blade” is “the cutting part of a tool, instrument, or weapon.” *Webster's New World Dictionary* 148 (David B. Guralnik ed., 2<sup>nd</sup> Coll. Ed., Simon & Schuster, Inc. 1984). To “cut” is “to make an opening in as with a sharp-edged instrument; pierce; incise; gash.” *Id.* at 349. Appellants do not provide a definition of “tool blade” or use this terminology in a manner which indicates or suggests a meaning that differs from its conventional meaning of “the cutting part of a tool.” Accordingly, we construe a “tool blade” as used in claim 1 to be the cutting part of a tool, with cutting understood to mean making an opening in as with a sharp-edged instrument, piercing, incising, or gashing. The terminology “tool blade” used in claim 1 is broader than the “saw blade 20” described in Appellants’ Specification (Specification 4:10 and figs. 1 and 2).

#### *Rejection (1)*

Appellants’ arguments on page 4 of the Reply Brief directed to the issue of whether an attached tool blade is an inherent feature of the power tool of Pioch are not germane to the rejection of claim 1 as anticipated by Pioch for two reasons. First, as discussed above, claim 1 does not require an

attached tool blade. Rather, claim 1 merely requires that the working end of the tool be capable of having a tool blade attached thereto and that the scroll collar have the capability of rotating relative to an attached reciprocating tool blade. Second, even assuming *arguendo* that claim 1 were construed so as to require a reciprocating tool blade attached to the working end, Pioch expressly teaches a reciprocating tool blade attached to the working end of the power tool. Specifically, Pioch's power tool includes a drill bit assembly 22 attached to the barrel portion 20 at the working end of the power tool (FF1). A drill bit has sharp edges that cut, in the sense of piercing or making an opening or gash in, the material of the workpiece being drilled (FF2) and thus is a tool blade, as called for in claim 1. Pioch further teaches that the power tool may be a hammer drill which imparts reciprocating axial force to the drill bit (FF3). Moreover, in any event, Pioch's barrel portion 20 is clearly capable of receiving and having attached thereto a saw blade provided with an end portion distal from the working end that has a configuration substantially similar to the drill bit 22.

Appellants argue that "there is a significant difference between the structure of Pioch which is adjustable relative to the tool as contrasted with a rotatable scroll collar that provides a rotating grip as claimed in claim 1" (Reply Br. 5). We do not agree. We fully appreciate that Appellants have disclosed a scroll collar that is not provided with means for fixing it relative to the support structure and tool housing and that is intended to remain free to rotate with respect to the tool during the scroll cutting process to enable the user to cut a curve without having to readjust or release the grip on the tool (Specification 5:17 to 6:2). Claim 1, however, is significantly broader than that disclosure. Claim 1 does not exclude a means for fixing the scroll

collar relative to the support structure or tool. Pioch teaches a generally cylindrical scroll collar (clamping means 34) (FF5) configured to rotate relative to a support structure (barrel portion 20) until the gripping member 32 is rotated to clamp the clamping means to collar portion 66 and hence collar portion 66 to barrel portion 20 (FF4). Pioch's clamping means 34 thus satisfies the limitation in claim 1 of "a generally cylindrical scroll collar carried by said support structure and configured to rotate relative to said support structure and an attached reciprocating tool blade around a scroll collar axis."

For the above reasons, Appellants' arguments do not demonstrate error in the Examiner's rejection of claim 1 as anticipated by Pioch. The rejection of claim 1 and claim 3, which stands or falls with claim 1, as anticipated by Pioch is sustained.

*Rejection (2)*

In contesting the rejection of claim 1 as unpatentable over Pioch or Ginter in view of Bourke, Appellants rely on their arguments, discussed above, that Pioch does not teach "a generally cylindrical scroll collar carried by said support structure and configured to rotate relative to said support structure and an attached reciprocating tool blade around a scroll collar axis" and point out that Ginter likewise lacks this feature (Reply Br. 7). These arguments are unpersuasive, for the same reasons discussed above with respect to the anticipation rejection. Like Pioch's power tool, Ginter's power tool likewise has a generally cylindrical scroll collar (ring 22) carried by a support structure (motor housing 10) and configured to rotate relative to the support structure and a tool blade attached to the motor housing around a scroll collar axis (FF6, FF7).

The Examiner contends that it would have been obvious to modify Pioch or Ginter by attaching the reciprocating saw conversion of Bourke to expand the utility and versatility of a cordless, electric or pneumatic power drill (Answer 6). Appellants urge that “[i]t is still a mystery to the applicant as to why Rourke’s [*sic*: Bourke’s] device for converting rotary drill motion to reciprocating saw action would be needed for a hammer saw that the Examiner has already indicated moves with a reciprocating action” (Reply Br. 7). Appellants’ argument is not well taken. Pioch does not limit the type of power tool with which the auxiliary handle is to be used to one that imparts reciprocating action (FF3). Nor does Pioch specify how reciprocating axial force is generated, in the case of power tools that do impart such a force to the working element. Ginter likewise does not limit the power tool to one that imparts reciprocating motion (FF6). A person of ordinary skill in the art at the time of Appellants’ invention clearly would have appreciated that use of an adaptor that converts rotational motion of a drill to reciprocating sawing action would expand the utility and versatility of cordless, electric, or pneumatic power drills (FF8). The modification proposed by the Examiner is nothing more than the predictable use of prior art elements according to their established functions. Appellants have not shown that the modification of either Pioch or Ginter to incorporate a converter of the type taught by Bourke to convert rotational motion to reciprocating sawing motion would have been beyond the technical grasp of a person of ordinary skill in the art. We thus conclude that Appellants have failed to demonstrate error in the Examiner’s rejection of claim 1 as unpatentable over Pioch or Ginter in view of Bourke. The rejection of claim 1 and claims 2, 3, 19, and 20, which stand or fall with claim 1, is sustained.

*Rejection (3)*

Appellants present no separate arguments against the rejection of claims 5 and 6 as unpatentable over either Pioch in view of Phillips or Pioch or Ginter in view of Bourke and Phillips. Accordingly, we sustain the rejection of claims 5 and 6 for the reasons discussed above.

CONCLUSION

The decision of the Examiner to reject claims 1-3, 5, 6, 19, and 20 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED

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